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TRANSMISSION SYSTEM
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PA - SONY CORP
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TI - Acoustic uniform resource locator signal output device for transmission to apparatus not connected physically - has encoder which produces acoustic URL signal through speaker, based on input URL

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AB - J11119974 NOVELTY - A keyboard (1101) inputs URL which is transmitted to an encoder (1102). The encoder outputs an acoustic URL signal based on the input URL. A speaker (1104) outputs the acoustic URL signal from the encoder. DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following: input device; URL data converter

- USE - For transmitting uniform resource locator (URL) signal between apparatus not connected physically.
- ADVANTAGE - Enables materializing web information output by URL signal input device. As acoustic signals are transmitted, physical connection is not required. DESCRIPTION OF DRAWING(S) - The figure shows the block diagram of the acoustic URL signal output device. (1101) Keyboard; (1102) Encoder; (1104) Speaker.
- (Dwg.3/30)

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AB - PROBLEM TO BE SOLVED: To enable the transmission of a uniform resource locator(URL) between non-connected equipment by superimposing the URL on an acoustic signal and transmitting it as the acoustic signal.

- SOLUTION: A keyboard 1101 supplies an URL to be transmitted to an encoder 1102. Based on the URL from the keyboard 1101, the encoder 1102 supplies an acoustic URL signal to an amplifier 1103. The amplifier 1103 amplifies the acoustic URL signal from the encoder 1102 at the level required for a loudspeaker 1104 and supplies it to the speaker 1104. The speaker 1104 outputs the acoustic URL signal supplied from the amplifier 1103.

I - G06F3/16 ; H04B10/105 ; H04B10/10 ; H04B10/22 ; H04B11/00

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1. This document has been translated by computer. So the translation may not reflect the original precisely.
2. **** shows the word which can not be translated.
3. In the drawings, any words are not translated.

DETAILED DESCRIPTION

[Detailed description]

[0001]

[Field of the Invention] This invention relates to the sound URL signal output unit through an acoustic signal or an infrared signal, a sound URL signal input unit, an infrared URL signal output unit, an infrared URL signal input unit, a sound URL signal infrared URL signal converter, an infrared URL signal sound URL signal converter, and URL transmission system.

[0002]

[Prior art] There was no method of transmitting URL (Uniform Resource Locator) between the devices which are not connected physically conventionally.

[0003] Therefore, when URL information which should access the device which is not connected physically existed, the user had to input the URL into the information processor with a web browser function like a home personal computer or internet TV, and was very inconvenient. Then, in order to make the access to a website easy, it is necessary to devise the structure which transmits URL by the device which is not connected physically.

[0004]

[The technical problem which invention is going to solve] When URL is extracted from the acoustic signal inputted as the sound URL signal output unit to which the purpose of this invention outputs URL as an acoustic signal in view of such a point, the website which the URL shows is accessed, a web information is acquired, and it is in proposing URL transmission system which consists of a sound URL signal input unit which outputs the web information.

[0005] Moreover, when the purpose of this invention extracts URL from the infrared signal inputted as the infrared URL signal output unit which outputs URL as an infrared signal, it accesses the website which the URL shows, acquires a web information, and is to propose URL transmission system which consists of an infrared URL signal input unit which outputs the web information.

[0006] Furthermore, the sound URL signal output unit to which the purpose of this invention outputs URL as an acoustic signal, The sound URL signal infrared URL signal converter which outputs the URL as an infrared signal when URL is extracted from the inputted acoustic signal, When URL is extracted from the inputted infrared signal, the website which the URL shows is accessed, a web information is acquired, and it is in proposing URL transmission system which consists of an infrared URL signal input unit which outputs the web information.

[0007] The infrared URL signal output unit to which the purpose of this invention outputs URL as an infrared signal further again, The infrared URL signal sound URL signal converter which outputs the URL as an acoustic signal when URL is extracted from the inputted infrared signal, When URL is extracted from the inputted acoustic signal, the website which the URL shows is accessed, a web information is acquired, and it is in proposing URL transmission system which consists of a sound URL signal input unit which outputs the web information.

[0008]

[The means for solving a technical problem] Invention given in a claim 1 is a sound URL signal output unit characterized by having the encoder which outputs a sound URL signal, and an acoustic signal output means to output a sound URL signal outside, on the basis of URL supplied from a URL input means to determine URL which should be transmitted, and URL input means.

[0009] An acoustic signal input means by which invention of a publication inputs an acoustic signal

into a claim 3, The decoder which extracts a sound URL signal from the acoustic signal supplied from an acoustic signal input means, and determines transmitted URL as a meaning, It is the sound URL signal input unit characterized by having an information-processing means to access the website which URL supplied from a decoder shows through a network circuit, and to output a web information, and a web information output means to output the web information supplied from an information-processing means.

[0010] A URL input means to determine URL which should transmit invention of a publication to a claim 4, The encoder which outputs a sound URL signal on the basis of URL supplied from URL input means, A sound URL signal output unit equipped with an acoustic signal output means to output a sound URL signal outside, The decoder which extracts a sound URL signal from the acoustic signal supplied from an acoustic signal input means to input an acoustic signal, and an acoustic signal input means, and determines transmitted URL as a meaning, An information-processing means to access the website which URL supplied from a decoder shows through a network circuit, and to output a web information, It is URL transmission system characterized by consisting of a sound URL signal input unit equipped with a web information output means to output the web information supplied from an information-processing means.

[0011] The sound URL signal output unit which makes an acoustic signal the sound URL signal which made URL superimpose on an acoustic signal, and is made to output from acoustic signal output meanses, such as a loudspeaker Incorporate an acoustic signal from acoustic signal input meanses, such as a microphone, and URL is taken out from the acoustic signal. The website which the URL shows can be accessed and URL can be transmitted between the devices which are not connected physically by consisting of a sound URL signal input unit which acquires a web information from the website. Therefore, with the equipment which has the web browser function in which URL can be incorporated out of the sound URL signal outputted from a loudspeaker, since it can access easily [the website which the URL shows], a web information can be acquired from the website. Moreover, an acoustic signal is changed into infrared radiation, and even if it transmits URL as infrared radiation, the same effect can be acquired by enabling it to incorporate URL out of infrared radiation.

[0012]

[Gestalt of implementation of invention] Hereafter, the enforcement gestalt of this invention is explained. URL transmission system to which this invention is applied consists of a sound URL output unit and a sound URL input unit. A sound URL output unit has a URL input means to determine URL which should be transmitted, the encoder which outputs a sound URL signal on the basis of URL supplied, and an acoustic signal output means to output the sound URL signal supplied.

[0013] Or a sound URL output unit is superimposed on a URL input means to determine URL which should be transmitted, the encoder which outputs a sound URL signal on the basis of URL supplied, and the acoustic signal to which the sound URL signal supplied is supplied from the exterior, and has the acoustic signal superposition machine to output and an acoustic signal output means to output the acoustic signal supplied.

[0014] A sound URL input unit extracts a sound URL signal from an acoustic signal input means to input an acoustic signal, and the acoustic signal supplied, and has the decoder which determines transmitted URL at a meaning, the information processor which accesses the website which URL supplied shows through a network circuit, and acquires a web information, and a web information output means to output the web information supplied.

[0015] Or URL transmission system concerning this invention consists of an infrared URL output unit and an infrared URL input unit.

[0016] An infrared URL output unit has a URL input means to determine URL which should be transmitted, the encoder which outputs an infrared URL signal on the basis of URL supplied, and an infrared signal output means to output the infrared URL signal supplied.

[0017] An infrared URL input unit extracts an infrared URL signal from an infrared signal input means to input an infrared signal, and the infrared signal supplied, accesses the decoder which determines transmitted URL at a meaning, and the website which URL supplied shows through a network circuit, and has the information processor which acquires a web information, and a web

information output means to output the web information supplied.

[0018] Or URL transmission system concerning this invention consists of a sound URL signal infrared URL signal converter, an above-mentioned sound URL output unit, and an infrared URL input unit.

[0019] A sound URL signal infrared URL signal converter extracts a sound URL signal from an acoustic signal input means to input an acoustic signal, and the acoustic signal supplied, and has the signal converter which outputs the infrared URL signal corresponding to the sound URL signal, and an infrared signal output means to output the infrared URL signal supplied.

[0020] Or URL transmission system concerning this invention consists of an infrared URL signal sound URL signal converter, an above-mentioned infrared URL output unit, and a sound URL input unit.

[0021] An infrared URL signal sound URL signal converter extracts an infrared URL signal from an infrared signal input means to input an infrared signal, and the infrared signal supplied, and has the signal converter which outputs the sound URL signal corresponding to the infrared URL signal, and an acoustic signal output means to output the sound URL signal supplied.

[0022] Next, the suitable enforcement gestalt of the equipment concerning this invention is explained in detail, referring to a drawing. On these specifications, an acoustic signal [the signal of human being's audible band] is written. Moreover, it writes a sound URL signal [the characteristic acoustic signal corresponding to URL and the couple 1] under the rule defined beforehand.

[0023] Moreover, on these specifications, an infrared signal [the signal with the wavelength of an infrared region] is written. Moreover, it writes an infrared URL signal [the characteristic infrared signal corresponding to URL and the couple 1] under the rule defined beforehand.

[0024] Moreover, on these specifications, it connects with internet and a website [an information server] is written, a website supplies a client and a client writes a web information [the information with which an user can be provided] through a browser. As an example of a web information, the text information written by format of HTML (Hyper Text Markup Language) etc., image information, etc. are mentioned.

[0025] Next, URL transmission system through the acoustic signal with which this invention is applied is explained in detail, referring to a drawing. Drawing 1 is the block diagram of the sound URL signal output unit which applied this invention. URL input section 101 supplies URL which should be transmitted to an encoder 102. A keyboard is mentioned as typical URL input section. An encoder 102 supplies a sound URL signal to the acoustic signal output section 103 on the basis of URL from URL input section 101. The acoustic signal output section 103 outputs the sound URL signal supplied from the encoder 102. A loudspeaker is mentioned as typical acoustic signal output section.

[0026] Drawing 2 is the block diagram of an example of the encoder 102 in drawing 1 . URL is supplied to a microcomputer 201 through an input terminal. A microcomputer 201 supplies the information (sound URL signal digitized and memorized) to D/A converter 203 through a microcomputer 201 on the basis of supplied URL with reference to URL and the sound URL signal correspondence table storage section 202. D/A converter 203 changes and outputs the information supplied from a microcomputer 201 to a sound URL signal.

[0027] The sound URL signal output unit which outputs URL as an acoustic signal is realizable by combining the means and equipment which were mentioned above.

[0028] At the sound URL output unit mentioned above, it cannot be overemphasized that the same effect will be acquired from the acoustic signal received though this signal was superimposed and outputted to the acoustic signal inputted from the exterior, although only the sound URL signal was outputted if the separation extraction of a sound URL signal is possible.

[0029] Drawing 3 is the block diagram of an example of a sound URL signal output unit. URL input section 301 supplies URL which should be transmitted to an encoder 302. An encoder 302 supplies a sound URL signal to the acoustic signal superposition section 303 on the basis of URL from URL input section 301. The sound URL signal supplied from the encoder 302 is superimposed on the acoustic signal supplied from an input terminal, and the acoustic signal superposition section 303 supplies it to the acoustic signal output section 304. The acoustic signal output section 304 outputs the acoustic signal supplied from the acoustic signal superposition section 302.

[0030] At the sound URL signal output unit mentioned above, it cannot be overemphasized that the same effect will be acquired from the acoustic signal received though a change, any, or one side was transmitted in time in accordance with the rule which was able to lay down beforehand the sound URL signal and the acoustic signal from an input terminal, although the sound URL signal was superimposed on the acoustic signal from the input terminal if the separation extraction of a sound URL signal is possible.

[0031] Drawing 4 is the block diagram of the sound URL signal input unit which applied this invention. The acoustic signal input section 401 changes into an acoustic signal the sound caught from the air, and supplies it to a decoder 402. A microphone is mentioned as typical acoustic signal input section. From the acoustic signal from the acoustic signal input section 402, a decoder 402 is extracting the sound URL signal corresponding to URL and the couple 1, determines transmitted URL, and supplies the URL to the information-processing section 403. The information-processing section 403 accesses the website which URL supplied from a decoder 402 shows through the network circuit 404 along with the procedure defined beforehand, acquires a web information, and supplies it to the web information output section 405. A microcomputer is mentioned as typical information-processing section. The web information output section 405 outputs the web information from the information-processing section 403. As typical web information output section, the output terminal which outputs a web information by the monitor or the protocol defined beforehand is mentioned.

[0032] Drawing 5 is the block diagram of an example of the decoder 402 in drawing 4. From the acoustic signal supplied from an input terminal, a band pass filter (BPF) 501 extracts only a required sound band, and supplies it to A/D converter 502. A/D converter 502 changes the signal supplied and supplies it to a microcomputer 503. A microcomputer 503 outputs URL corresponding to the signal on the basis of the information supplied from the A/D converter with reference to URL and the sound URL signal correspondence table storage section 504.

[0033] Drawing 6 is the block diagram of an example of the information-processing section 403 in drawing 4. The system controller 602 is connected to CPU601 which performs a control, an operation, etc. of the whole information-processing section. In a system controller 602, CPU601, ROM603 and RAM604, and timing adjustment with other controllers are performed. The procedure of the whole information-processing section is memorized by ROM603, and it is referred by the designation from CPU601 or the system controller 602 at it. Informational writing and reading are performed in RAM604 by the designation from CPU601 or the system controller 602. The bus 605 for transmitting an information is connected to the system controller 602, and a display controller 606, the network-connection section 607, the alter operation key controller 608, or I/O controller 609 is connected through this bus 605.

[0034] From a display controller 606, a web information is outputted based on the designation from CPU601. In the network-connection section 607, based on the designation from CPU601, a transmission information is modulated according to the protocol defined beforehand, and it outputs to a network. Or in the network-connection section 607, when a signal is inputted according to the protocol defined beforehand, it restores to the signal and CPU601 is supplied. The telephone line is mentioned as a typical example of a network circuit. In that case, it is the network-connection section 607, i.e., the dialup section, and a transmission information is modulated and outputted to the acoustic signal which can be transmitted by the telephone line based on the designation from CPU601. Or when an acoustic signal is inputted into the dialup section, it restores to the signal and CPU601 is supplied.

[0035] By the alter operation key controller 608, a keyboard, a handler (an operating button, operation key), etc. are connected, the operation signal according to those operations is generated, and CPU601 is supplied. In I/O controller 609, an information is outputted from an output terminal based on the designation from CPU601. Or in I/O controller 609, when an information is inputted from an input terminal, the information is supplied to CPU601.

[0036] Next, with reference to the flow chart of drawing 7, processing which the procedure of the information-processing section mentioned above, i.e., the sound URL signal input unit by this invention, performs is explained. In step S701, it judges whether URL was inputted from the decoder. When URL is inputted, a control moves to step S702, and when URL is not inputted, a

control returns to step S701. That is, the control has stopped at step S701 until URL is inputted. In step S702, the website which inputted URL shows is accessed through a network circuit, a web information is acquired, and a control moves to step S703. In step S703, a web information is outputted and a control returns to step S704.

[0037] If such procedure is used, the sound URL signal input unit by this invention will output the web information which accessed immediately the website which the URL shows through the network circuit, and was acquired, when a sound URL signal is extracted from the inputted acoustic signal.

[0038] URL is extracted from the inputted acoustic signal by combining the means, the equipment, and procedure which were mentioned above, and the sound URL signal input unit which accesses the website which the URL shows can be realized.

[0039] If the sound URL signal output unit by this invention and sound URL signal input unit which were mentioned above are used, URL transmission system is realizable.

[0040] now, it is desirable that possibility that it will carry out the acoustic signal which is not a sound URL signal a misjudgment exception under the rule defined beforehand if a sound URL signal is a sound URL signal although using with every acoustic signal is possible if it is a characteristic acoustic signal corresponding to URL and the couple 1 is low -- obvious -- it is .

[0041] Then, an example using the Dial Tone Multi Frequency train as a sound URL signal is explained. It is clearer than already put in practical use by the push circuit of a telephone etc. that a Dial Tone Multi Frequency train's possibility of carrying out the acoustic signal which is not what was made by modeling intentionally a Dial Tone Multi Frequency train and misjudgment exception is comparatively low.

[0042] Drawing 8 is drawing having shown the specification frequency of a Dial Tone Multi Frequency. It is shown that the acoustic signal with which this drawing expresses "1" is an acoustic signal which superimposed the acoustic signal (1209Hz and 697Hz). The circuit which generates a Dial Tone Multi Frequency is integrated and generalized as a DTME tone encoder. For example, if "1" is given to the circuit as an input, the acoustic signal which superimposed the acoustic signal (1209Hz and 697Hz) will occur. Moreover, the circuit which extracts a Dial Tone Multi Frequency from an input acoustic signal is integrated and generalized as a DTME tone decoder. For example, "1" is outputted when both sound components (1209Hz and 697Hz) are contained in the input acoustic signal of the circuit.

[0043] Usually, since URL consists of the alphabet and a notation, if 16 kinds of codes which show those alphabet and notations to drawing 8 combine and the technique of expressing is used, it is the signal train which arranged the Dial Tone Multi Frequency in time series, and it is clear an easy thing's to express URL. For example, if "a" sets "0, 1", and "b" to the condition of "0 and 2" beforehand, since it is possible to express the alphabet and a notation using 16 kinds of codes shown in drawing 8 , the URL which should combine, should come out and should transmit a certain place can change a Dial Tone Multi Frequency into the signal train arranged in time series. That is, since it can correspond to URL which should transmit the signal train which arranged the Dial Tone Multi Frequency in time series at a couple 1, it can use as a sound URL signal.

[0044] The sound URL signal output unit using a Dial Tone Multi Frequency train as a sound URL signal should just make the encoder of an above-mentioned sound URL signal output unit correspond to a Dial Tone Multi Frequency train. The sound URL signal input unit using a Dial Tone Multi Frequency train as a sound URL signal should just make the decoder of an above-mentioned sound URL signal input unit correspond to a Dial Tone Multi Frequency train similarly.

[0045] Drawing 9 applies this invention and is the block diagram of an example of an encoder of the sound URL signal output unit using a Dial Tone Multi Frequency train as a sound URL signal. URL supplied from an input terminal, i.e., control instruction, is supplied to a microcomputer 901. A microcomputer 901 supplies the information to DTME tone encoder 903 on the basis of the supplied control instruction with reference to URL and the Dial Tone Multi Frequency train correspondence table storage section 902. DTME tone encoder 903 outputs a Dial Tone Multi Frequency train using the information supplied from a microcomputer 901.

[0046] Drawing 10 applies this invention and is the block diagram of an example of a decoder of the sound URL signal input unit using a Dial Tone Multi Frequency train as a sound URL signal. DTME

tone decoder 1001 changes the acoustic signal supplied, and supplies it to a microcomputer 1002. On the basis of the information supplied from DTME tone decoder, with reference to URL and the Dial Tone Multi Frequency train correspondence table storage section 1003, a microcomputer 1002 gains the control instruction corresponding to the signal, sets gained control instruction to URL, and outputs it from an output terminal.

[0047] If these encoders and a decoder are applied to a sound URL signal output unit and a sound URL signal input unit, respectively, URL transmission system which makes a Dial Tone Multi Frequency train a sound URL signal is realizable. Thus, it was shown that URL transmission system using the Dial Tone Multi Frequency train as a sound URL signal is realizable.

[0048] Next, the enforcement gestalt of URL transmission system through the acoustic signal concerning this invention is explained in detail, referring to a drawing. Drawing 11 is the block diagram of the enforcement gestalt of the sound URL signal output unit which applied this invention. A keyboard 1101 supplies URL which should be transmitted to an encoder 1102. An encoder 1102 supplies a sound URL signal to amplifier 1103 on the basis of URL from a keyboard 1101. Amplifier 1103 amplifies the sound URL signal from an encoder 1102 to the grade which needs a loudspeaker 1104, and supplies it to a loudspeaker 1104. A loudspeaker 1104 outputs the sound URL signal supplied from amplifier 1103.

[0049] Drawing 12 is the block diagram of the enforcement gestalt of the sound URL signal input unit which applied this invention. A microphone 1201 changes into an acoustic signal the sound caught from the air, and supplies it to amplifier 1202. Amplifier 1202 amplifies the acoustic signal from a microphone 1201 to the grade which needs a decoder 1203, and supplies it to a decoder 1203. From the acoustic signal from amplifier 1202, a decoder 1203 is extracting the sound URL signal corresponding to URL and the couple 1, determines URL transmitted as a sound URL signal, and supplies the URL to the information-processing section 1204. The information-processing section 1204 accesses the website which URL supplied from a decoder 1203 shows through the telephone line 1205 along with the procedure defined beforehand, acquires a web information, and supplies it to a monitor 1206. A monitor 1206 displays the web information from the information-processing section 1204.

[0050] If the sound URL signal output unit and sound URL signal input unit which were mentioned above are used, URL transmission system through an acoustic signal is realizable.

[0051] Drawing 13 is drawing having shown the idea of an example of URL transmission system which consists of the sound URL signal output unit and sound URL signal input unit by this invention. In the sound URL signal output unit 1301, if an user inputs URL which should be transmitted with a keyboard 1302, the sound URL signal corresponding to the URL will be outputted from a loudspeaker 1303. On the other hand, in the sound URL signal input unit 1304, when a sound URL signal is extracted by the acoustic signal inputted from the microphone 1305, the web information which accessed the website which URL corresponding to the sound URL signal shows through the telephone line 1306; and was acquired is displayed on a monitor 1307.

[0052] Drawing 14 is drawing which consists of the sound URL signal output unit and sound URL signal input unit by this invention, and contains a broadcast system in a transmission path and in which having shown the idea of an example of URL transmission system. In the sound URL signal output unit 1401, if an user inputs URL which should be transmitted with a keyboard 1402, the sound URL signal corresponding to the URL will be outputted. Here, the transmitter 1403 is connected to the sound URL signal output unit 1402 as acoustic signal output section, it lets the transmitting antenna 1404 pass, and a sound URL signal is broadcast.

[0053] On the other hand, a radio set 1405 receives a broadcast through a receiving antenna 1406, restores to an acoustic signal, and outputs from a loudspeaker 1407. a sound URL signal -- this -- since it is a mere acoustic signal qualitatively, it gets over like other acoustic signals, and is outputted from a loudspeaker In the sound URL signal input unit 1408, when a sound URL signal is extracted by the acoustic signal inputted from the microphone 1409, the web information which accessed the website which URL corresponding to the sound URL signal shows through the telephone line 1410, and was acquired is displayed on a monitor 1411.

[0054] Next, URL transmission system through the infrared signal concerning this invention is explained in detail, referring to a drawing. Drawing 15 is the block diagram of the infrared URL

signal output unit which applied this invention. URL input section 1501 supplies URL which should be transmitted to an encoder 1502. A keyboard is mentioned as typical URL input section. An encoder 1502 supplies an infrared URL signal to the infrared signal output section 1503 on the basis of URL from URL input section 1501. The infrared signal output section 1503 outputs the infrared URL signal supplied from the encoder 1502. Light Emitting Diode is mentioned as typical infrared signal output section.

[0055] Drawing 16 shows the block diagram of an example of the encoder in drawing 15. URL is supplied to a microcomputer 1601 from an input terminal. A microcomputer 1601 outputs an infrared URL signal through a fishing terminal on the basis of supplied URL with reference to URL and the infrared URL signal correspondence table storage section 1602.

[0056] The infrared URL signal output unit which outputs URL as an infrared signal is realizable by combining the means and equipment which were mentioned above.

[0057] Drawing 17 is the block diagram of the infrared URL signal input unit which applied this invention. The infrared signal input section 1701 recovers an infrared signal from the infrared radiation caught from the air, and supplies it to a decoder 1702. A photo transistor is mentioned as typical infrared signal input section. From the infrared signal from the infrared signal input section 1702, a decoder 1702 is extracting the infrared URL signal corresponding to URL and the couple 1, determines transmitted URL, and supplies the URL to the information-processing section 1703. The information-processing section 1703 accesses the website which URL supplied from a decoder 1702 shows through the network circuit 1704 along with the procedure defined beforehand, acquires a web information, and supplies it to the web information output section 1705. A microcomputer is mentioned as typical information-processing section. The web information output section 1705 outputs the web information from the information-processing section 1703. As typical web information output section, the output terminal which outputs a web information by the monitor or the protocol defined beforehand is mentioned.

[0058] Drawing 18 is the block diagram of an example of the decoder 1702 in drawing 17. A/D converter 1801 changes the signal supplied and supplies it to a microcomputer 1802. A microcomputer 1802 outputs URL corresponding to the signal on the basis of the information supplied from the A/D converter with reference to URL and the infrared URL signal correspondence table storage section 1803.

[0059] The information-processing section 1703 in drawing 17 is the same as that of the information-processing section shown in drawing 6. Moreover, the procedure of the information-processing section 1703 is the same as that of the procedure shown in drawing 7.

[0060] In the data transmission format using the infrared radiation already put in practical use like SIRCS, an infrared URL signal is setting up the HDR which shows the content of a transmission being URL, and can be realized easily.

[0061] The infrared URL signal input unit which extracts URL from the inputted infrared signal by combining the means, the equipment, and procedure which were mentioned above, and accesses the website which the URL shows is realizable.

[0062] If the infrared URL signal output unit by this invention and infrared URL signal input unit which were mentioned above are used, URL transmission system is realizable.

[0063] Next, the enforcement gestalt of URL transmission system through the infrared signal concerning this invention is explained in detail, referring to a drawing. Drawing 19 is the block diagram of an example of the infrared URL signal output unit which applied this invention. A keyboard 1901 supplies URL which should be transmitted to an encoder 1902. An encoder 1902 supplies an infrared URL signal to a modulator 1903 on the basis of URL from a keyboard 1901. A modulator 1903 modulates the infrared URL signal from an encoder 1902, and supplies it to Light Emitting Diode 1904. Light Emitting Diode 1904 outputs the infrared URL signal supplied from the modulator 1903.

[0064] Drawing 20 is the block diagram of an example of the infrared URL signal input unit which applied this invention. A photo transistor 2001 changes into an electrical signal the infrared radiation caught from the air, and supplies it to a demodulator 2002. A demodulator 2002 recovers an infrared signal from the signal from a photo transistor 2001, and supplies it to a decoder 2003. From the infrared signal from a demodulator 2002, a decoder 2003 is extracting the infrared URL signal

corresponding to URL and the couple 1, determines transmitted URL, and supplies the URL to the information-processing section 2004. The information-processing section 2004 accesses the website which URL supplied from a decoder 2003 shows through the telephone line 2005 along with the procedure defined beforehand, acquires a web information, and supplies it to a monitor 2006. A monitor 2006 displays the web information from the information-processing section 2004.

[0065] If the infrared URL signal output unit and infrared URL signal input unit which were mentioned above are used, URL transmission system through an infrared signal is realizable.

[0066] Drawing 21 is drawing having shown the idea of an example of URL transmission system which consists of the infrared URL signal output unit and infrared URL signal input unit by this invention. In the infrared URL signal output section 2101, if an user inputs URL which should be transmitted with a keyboard 2102, the infrared URL signal corresponding to the URL from Light Emitting Diode 2103 will be outputted. On the other hand, in the infrared URL signal input unit 2104, when an infrared URL signal is extracted by the infrared signal inputted from ***** 2105, the web information which accessed the website which URL corresponding to the infrared URL signal shows through the telephone line 2106, and was acquired is displayed on a monitor 2107.

[0067] now, in the transmission system explained until now, in order to access a website using a sound URL signal input unit, the sound URL signal outputted from a sound URL signal output unit is indispensable -- obvious -- it is .

[0068] similarly, in order to access a website using an infrared URL signal input unit, the infrared URL signal outputted from an infrared URL signal output unit is indispensable -- obvious -- it is .

[0069] However, if there is equipment which changes a sound URL signal into an infrared URL signal, it will be enabled to access an infrared URL signal input unit at a website also with the sound URL signal outputted from a sound URL signal output unit.

[0070] If there is equipment which changes an infrared URL signal into a sound URL signal similarly, it will be enabled to access a sound URL signal input unit at a website also with the infrared URL signal outputted from an infrared URL signal output unit.

[0071] Next, URL transmission system using the sound URL signal infrared URL signal converter by this invention is explained in detail, referring to a drawing. Drawing 22 is the block diagram of the sound URL signal infrared URL signal converter which applied this invention. The acoustic signal input section 2201 changes into an acoustic signal the sound caught from the air, and supplies it to a signal converter 2202. A microphone is mentioned as typical acoustic signal input section. From the acoustic signal from the acoustic signal input section 2201, a signal converter 2202 extracts the sound URL signal corresponding to URL and the couple 1, and supplies the infrared URL signal corresponding to the sound URL signal to the infrared output section 2203. The infrared signal output section 2203 outputs the infrared URL signal supplied from the signal converter 2202. Light Emitting Diode is mentioned as typical infrared signal output section.

[0072] Drawing 23 is the block diagram of an example of the signal converter 2202 in drawing 22 . From the acoustic signal supplied, a band pass filter 2301 extracts only a required sound band, and supplies it to A/D converter 2302. A/D converter 2302 changes the signal supplied and supplies it to a microcomputer 2303. With reference to a sound URL signal and the infrared URL signal correspondence table storage section 2304, a microcomputer 2303 extracts an infrared URL signal and the sound URL signal corresponding to a couple 1 from the supplied information on the basis of the information supplied from A/D converter 2302, and outputs the infrared URL signal corresponding to the sound URL signal to it.

[0073] The inputted sound URL signal is extracted by combining the means and equipment which were mentioned above, and the sound URL signal infrared URL signal converter which outputs the infrared URL signal corresponding to the sound URL signal can be realized.

[0074] If a sound URL signal infrared URL signal converter changes into an infrared URL signal the sound URL signal which an above-mentioned sound URL signal output unit outputs by this sound URL signal infrared URL signal converter, an input will become possible at an above-mentioned infrared URL signal input unit.

[0075] Therefore, URL transmission system is realizable combining the sound URL signal infrared URL signal converter by this invention, and an above-mentioned sound URL signal output unit and an infrared URL signal input unit.

[0076] Next, the enforcement gestalt of URL transmission system using the sound URL signal infrared URL signal converter by this invention is explained in detail, referring to a drawing. Drawing 24 is the block diagram of the enforcement gestalt of the sound URL signal infrared URL signal converter which applied this invention. A microphone 2401 changes into an acoustic signal the sound caught from the air, and supplies it to amplifier 2402. Amplifier 2402 amplifies the acoustic signal from a microphone 2401 to the grade which needs a signal converter 2403, and supplies it to a signal converter 2403. A signal converter 2403 extracts a sound URL signal from the acoustic signal from amplifier 2402, and supplies the infrared URL signal corresponding to the sound URL signal to a modulator 2404. A modulator 2404 modulates the infrared URL signal from a signal converter 2403, and supplies it to Light Emitting Diode 2405. Light Emitting Diode 2405 outputs the infrared URL signal supplied from the modulator 2404.

[0077] The inputted sound URL signal is extracted by combining the means and equipment which were mentioned above, and the sound URL signal infrared URL signal converter which outputs the infrared URL signal corresponding to the sound URL signal can be realized.

[0078] Drawing 25 is drawing having shown the idea of an example of URL transmission system which consists of the sound URL signal infrared URL signal converter and sound URL signal output unit by this invention, and a sound URL signal input unit. In the sound URL signal output unit 2501, if an user inputs URL which should be transmitted with a keyboard 2502, the sound URL signal corresponding to the URL will be outputted from a loudspeaker 2503. In the sound URL signal infrared URL signal converter 2504, when a sound URL signal is extracted by the acoustic signal inputted from the microphone 2505, the infrared URL signal corresponding to the sound URL signal is outputted from Light Emitting Diode 2506. On the other hand, in the infrared URL signal input unit 2507, when an infrared URL signal is extracted by the infrared signal inputted from ***** 2508, the web information which accessed the website which URL corresponding to the infrared URL signal shows through the telephone line 2509, and was acquired is displayed on a monitor 2510.

[0079] Drawing 26 is drawing which consists of the sound URL signal infrared URL signal converter and sound URL signal output unit by this invention, and a sound URL signal input unit, and contains a broadcast system in a transmission path and in which having shown the idea of an example of URL transmission system. In the sound URL signal output unit 2601, if an user inputs URL which should be transmitted with a keyboard 2602, the sound URL signal corresponding to the URL will be outputted. Here, the transmitter 2603 is connected to the sound URL signal output unit 2601 as acoustic signal output section, it lets the transmitting antenna 2604 pass, and a sound URL signal is broadcast.

[0080] On the other hand, a radio set 2605 receives a broadcast through a receiving antenna 2606, restores to an acoustic signal, and outputs from a loudspeaker 2607. a sound URL signal -- this -- since it is a mere acoustic signal qualitatively, it gets over like other acoustic signals, and is outputted from a loudspeaker. In the sound URL signal infrared URL signal converter 2608, when a sound URL signal is extracted by the acoustic signal inputted from the microphone 2609, the infrared URL signal corresponding to the sound URL signal is outputted from Light Emitting Diode 2610. In the infrared URL signal input unit 2611, when an infrared URL signal is extracted by the infrared signal inputted from ***** 2612, the web information which accessed the website which URL corresponding to the infrared URL signal shows through the telephone line 2613, and was acquired is displayed on a monitor 2614.

[0081] Next, URL transmission system using the infrared URL signal sound URL signal converter concerning this invention is explained in detail, referring to a drawing. Drawing 27 is the block diagram of the infrared URL signal sound URL signal converter which applied this invention. The infrared signal input section 2701 recovers an infrared signal from the infrared radiation caught from the air, and supplies it to a signal converter 2702. A photo transistor is mentioned as typical infrared signal input section. From the infrared signal from the infrared signal input section 2701, a signal converter 2702 extracts the infrared URL signal corresponding to URL and the couple 1, and supplies the sound URL signal corresponding to the infrared URL signal to the sound output section 2703. The acoustic signal output section 2703 outputs the sound URL signal supplied from the signal converter 2702. A loudspeaker is mentioned as typical acoustic signal output section.

[0082] Drawing 28 is the block diagram of an example of the signal converter 2702 in drawing 27.

A/D converter 2801 changes the signal supplied and supplies it to a microcomputer 2802. A microcomputer 2802 supplies the information (sound URL signal digitized and memorized) to D/A converter 2803 through a microcomputer 2802 on the basis of URL supplied from A/D converter 2801 with reference to a sound URL signal and the infrared URL signal correspondence table storage 2804. D/A converter 2803 changes into a sound URL signal the information supplied from a microcomputer 2802, and outputs it through an output terminal.

[0083] The inputted infrared URL signal is extracted by combining the means and equipment which were mentioned above, and the infrared URL signal sound URL signal converter which outputs the sound URL signal corresponding to the infrared URL signal can be realized.

[0084] If an infrared URL signal sound URL signal converter changes into a sound URL signal the infrared URL signal which an above-mentioned infrared URL signal output unit outputs by this infrared URL signal sound URL signal converter, an input will become possible at an above-mentioned sound URL signal input unit.

[0085] Therefore, URL transmission system is realizable combining the infrared URL signal sound URL signal converter by this invention, and an above-mentioned infrared URL signal output unit and a sound URL signal input unit.

[0086] Next, the enforcement gestalt of URL transmission system using the infrared URL signal sound URL signal converter to which this invention is applied is explained in detail, referring to a drawing. Drawing 29 is the block diagram of the enforcement gestalt of the infrared URL signal sound URL signal converter which applied this invention. A photo transistor 2901 changes into an electrical signal the infrared radiation caught from the air, and supplies it to a demodulator 2902. A demodulator 2902 recovers an infrared signal from the signal from a photo transistor 2901, and supplies it to a signal converter 2903. A signal converter 2903 extracts an infrared URL signal from the signal from a demodulator 2902, and supplies the sound URL signal corresponding to the infrared URL signal to amplifier 2904. Amplifier 2904 amplifies the sound URL signal from a signal converter 2903 to the grade which needs a loudspeaker 2905, and supplies it to a loudspeaker 2905. A loudspeaker 2905 outputs the sound URL signal supplied from amplifier 2904.

[0087] The inputted infrared URL signal is extracted by combining the means and equipment which were mentioned above, and the infrared URL signal sound URL signal converter which outputs the sound URL signal corresponding to the infrared URL signal can be realized.

[0088] Drawing 30 is drawing having shown the idea of an example of URL transmission system which consists of the infrared URL signal sound URL signal converter and infrared URL signal output unit by this invention, and an infrared URL signal input unit. In the infrared URL signal output unit 3001, if an user inputs URL which should be transmitted with a keyboard 3002, the infrared URL signal corresponding to the URL from Light Emitting Diode 3003 will be outputted. In the infrared URL signal sound URL signal converter 3004, when an infrared URL signal is extracted by the infrared signal inputted from ***** 3005, the sound URL signal corresponding to the infrared URL signal is outputted from a loudspeaker 3006.

[0089] On the other hand, in the sound URL signal input unit 3007, when a sound URL signal is extracted by the acoustic signal inputted from the microphone 3008, the web information which accessed the website which URL corresponding to the sound URL signal shows through the telephone line 3009, and was acquired is displayed on a monitor 3010.

[0090] any circuit is sufficient, as long as it is accessible to the website, although the telephone line is mentioned as an example of a network circuit with the enforcement gestalt mentioned above -- obvious -- it is .

[0091] Moreover, although the enforcement gestalt mentioned above has explained as a sound URL signal receiving set, it cannot be overemphasized by applying as software the procedure explained so far to the personal computer having the function which accesses to an acoustic signal reception function and a website, and displays a web information that it can realize.

[0092] Although it came, the thing which mentioned as the example which uses an acoustic signal, i.e., the signal of human being's audible band, and was explained as a sound URL signal with the enforcement gestalt mentioned above and for which the same effect can be acquired by this invention by every signal if it is the signal which can be inputted in the acoustic signal input sections, such as the output possibility of and a microphone, by the sound output sections, such as a loudspeaker,

cannot be overemphasized.

[0093]

[Effect of the invention] When having depended on this invention and URL was extracted from the acoustic signal inputted as the sound URL signal output unit which outputs URL as an acoustic signal, the website which the URL shows was accessed, the web information was acquired, and URL transmission system which consists of a sound URL signal input unit which outputs the web information has been realized.

[0094] Moreover, when having depended on this invention and URL was extracted from the infrared signal inputted as the infrared URL signal output unit which outputs URL as an infrared signal, the website which the URL shows was accessed, the web information was acquired, and URL transmission system which consists of an infrared URL signal input unit which outputs the web information has been realized.

[0095] Furthermore, the sound URL signal output unit which will output URL as an acoustic signal if it depends on this invention, The sound URL signal infrared URL signal converter which outputs the URL as an infrared signal when URL is extracted from the inputted acoustic signal, When URL was extracted from the inputted infrared signal, the website which the URL shows was accessed, the web information was acquired, and URL transmission system which consists of an infrared URL signal input unit which outputs the web information has been realized.

[0096] The infrared URL signal output unit which will output URL as an infrared signal further again if it depends on this invention, The infrared URL signal sound URL signal converter which outputs the URL as an acoustic signal when URL is extracted from the inputted infrared signal, When URL was extracted from the inputted acoustic signal, the website which the URL shows was accessed, the web information was acquired, and URL transmission system which consists of a sound URL signal input unit which outputs the web information has been realized.

[Translation done.]